

WHAT IS CLAIMED IS:

1. An apparatus for the stripping of entrained and/or adsorbed hydrocarbons from particulate material, said apparatus comprising:

a stripping vessel;

5 at least one port defined by the stripping vessel for receiving particles that contain entrained or adsorbed hydrocarbons from the contact of the particles with a hydrocarbon stream and for withdrawing stripping fluid and stripped hydrocarbons from the stripping vessel;

a plurality of sloped stripping baffles spaced apart vertically over at least a portion
10 of the stripping vessel height with each baffle having a sloped surface, each baffle having a top section proximate a top edge of said baffle and a bottom section proximate a bottom edge of said baffle, said top section and said bottom section being demarcated by an imaginary line extending laterally on said baffle and substantially parallel to one of said top edge, said bottom edge
15 and an imaginary line bifurcating said baffle into equal areas;

a plurality of openings on the top section of said baffle and a plurality of openings on the bottom section of said baffle, a ratio of the total area of openings to the area of the section of the baffle being greater in the bottom section of said baffle than in the top section of said baffle;

20 at least one fluid inlet for passing a stripping fluid to the underside of at least one stripping baffle for stripping hydrocarbons from the particulate material; and

at least one particle outlet for recovering stripped particles from the stripping baffles.

2. The apparatus of claim 1 wherein said at least one port comprises a single opening at the top of the stripping vessel for receiving particles and withdrawing stripping
5 gas and stripping fluid.

3. The apparatus of claim 1 wherein each stripping baffle has a transverse projection equal to at least one-third of the minimum transverse cross-section of the stripping vessel at that baffle location.

4. The apparatus of claim 1 wherein a total area of openings in the bottom
10 section is greater than in the top section of said baffle.

5. The apparatus of claim 1 wherein an average distance between adjacent openings is smaller in the bottom section of the baffle than in the top section of the baffle.

6. The apparatus of claim 1 wherein openings in the bottom section and top
15 section of said baffle are distributed in rows substantially parallel to one of said top and bottom edges.

7. The apparatus of claim 6 wherein a distance between adjacent rows of openings and a distance between openings in one of said adjacent rows of openings is equal.

20 8. The apparatus of claim 1 wherein the imaginary line bifurcates said baffle into equal areas.